

ABSTRACT

A method for increasing the rate of thermal inactivation of a pathogen in a nutriment by contacting the nutriment with an acidulant. A method for extending case shelf-life of a nutriment by contacting the nutriment with an acidulant. The acidulant can be: (a) an acidic, or low pH, solution of sparingly-soluble Group IIA complexes ("AGIIS"); (b) a highly acidic metalated mixture of inorganic acid ("HAMMIA"); (c) a highly acidic metalated organic acid ("HAMO"); (d) a mixture of the above; or (e) an adduct of each of the above. The nutriment can be an animal product, a plant product, a beverage, or a mixture thereof.